

Amendments to the Claims:

Please cancel claims 1-20 as presented in the underlying International Application No. PCT/DE03/01556.

Please add new claims 21-41 as indicated in the listing of claims below.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-20 (canceled)

Claim 21 (new): A method for recognition of biometric data, comprising:

- illuminating an object using a light source;
- simultaneously acquiring a plurality of images of the object from at least two different imaging directions using optical scanning;
- acquiring numerical data for each of at least two of the plurality of images using digital image processing;
- calculating a three-dimensional model of the object from the numerical data of each of the at least two images;
- comparing the three-dimensional model to a reference model, wherein the reference model is acquired from a plurality of other images; and
- recognizing the object as a correct object when the numerical data from the each of the at least two images simultaneously correspond with data from the reference model within a predetermined tolerance.

Claim 22 (new): The method as recited in claim 21, wherein the biometric data includes at least one characteristic of one of fingers and a face of a person.

Claim 23 (new): The method as recited in claim 21, wherein characteristic recognition attributes (m_F) of dermal ridges of a reference object are acquired in a reference function $R(z, y, m_F)$ for acquiring the reference model, and wherein the comparing includes comparing a recognition function $F(z, y, m_F)$ describing characteristic recognition attributes (m_F) of dermal ridges of the object with the reference model.

Claim 24 (new): The method as recited in claim 21, wherein discrete geometric structure attributes are analyzed from at least one of the images.

Claim 25 (new): The method as recited in claim 24, wherein the object is a finger and wherein the three-dimensional model describes a geometric shape of a front phalanx of the finger.

Claim 26 (new): The method as recited in claim 25, wherein the numerical data includes at least one of a length of the phalanx l_G , a width of the phalanx b_G , a length of the nail l_N , a width of the nail b_N , a projected area of the phalanx F_G , a projected area of the nailbed F_N and a coefficient derived from at least one of l_G , b_G , l_N , b_N , F_G , and F_N .

Claim 27 (new): The method as recited in claim 24, wherein the object is a face, wherein the plurality of images includes a front image and a lateral image, and wherein an ear is at least partially visible in the lateral image.

Claim 28 (new): The method as recited in claim 21, wherein the illuminating of the object includes projecting one of a light slit and a light raster onto the object so as to form a contour on a spatial surface of the object, wherein at least one of the plurality of images is acquired using light of a first wavelength and at least one other of the plurality of images is acquired using light of a second wavelength different from the first wavelength used, and wherein a characterizing of the contour of a partial area of the object is used as an additional parameter for recognizing a concordance of the object with the reference model.

Claim 29 (new): The method as recited in claim 21, wherein the illuminating of the object includes directing an illumination path coming laterally from the light source onto the object and wherein the acquiring of numerical data includes analyzing both a reflected portion and a transmitted portion using at least one of a spectroscopic analysis and a scattered-light-spectroscopic analysis.

Claim 30 (new): The method as recited in claim 28, wherein the first wavelength is 678 nm and the second wavelength is about 808 nm to 835 nm.

Claim 31 (new): The method as recited in claim 21, wherein the illuminating is performed punctually using additional light sources in at least one of a visible and infrared spectral range two at least two points on the object and wherein an intensity of the light backdiffused from the object is measured at the at least two points and compared to a reference value.

Claim 32 (new): The method as recited in claim 31, wherein a place of maximal intensity is determined for the at least two points and a mean value is calculated from the value of at least two intensity centroids.

Claim 33 (new): The method as recited in claim 21, wherein the plurality of other images are acquired by skewing the object stepwise around an axis running through the object and wherein at least two of the plurality of other images are saved in several discrete situations respectively and are joined together to at least one three-dimensional model reference model.

Claim 34 (new): The method as recited in claim 21, wherein a plurality of light sources are switched in a pulse-coded manner and, synchronously, an analysis of the signals is performed using an image receiver array.

Claim 35 (new): An apparatus for carrying out the method according to claims 21, the apparatus comprising:

- at least one illumination device configured to emit at least one of a visible and an infrared light; and

- at least two light detectors configured to acquire independent images.

Claim 36 (new): The apparatus as recited in claim 35, wherein the at least two light detectors are disposed in at least one image receiver array.

Claim 37 (new): The apparatus as recited in claim 36, wherein the array includes a CMOS array having at least two areas are arranged for acquiring separated images and further comprising a device for optical merging of two images disposed in front of the array.

Claim 38 (new): The apparatus as recited in claim 36, wherein the at least one illumination device includes at least two light sources disposed in one of a pairwise and a ring-shaped manner around at least one of the at least two light detectors so as to illuminate the object

punctually and wherein the at least one of the at least two light detectors acquires a backscattered intensity distribution.

Claim 39 (new): The apparatus as recited in claim 38, wherein a plurality of light detectors acquires the intensity distribution.

Claim 40 (new): The apparatus as recited in claim 39, wherein the plurality of light detectors are part of an electronic camera and wherein several images are acquired by the camera from different directions and are merged using beam-combining optical elements.

Claim 41 (new): The apparatus as recited in claim 38, wherein for punctual illumination, the at least two light sources are disposed as an independent module.